UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,986	08/25/2006	Tor Brekke	2440.0010001/MAC	2477

26111 7590 11/24/2009

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
1100 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER	
BAUER, CASSEY D	

ART UNIT	PAPER NUMBER
3744	

MAIL DATE	DELIVERY MODE
11/24/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/552,986	BREKKE, TOR	
	Examiner	Art Unit	
	Cassey Bauer	3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 July 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *18-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *18-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 October 2005* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

The Amendment filed July 13, 2009 has been entered. Claims 18-34 remain pending in the application. The previous objection to the specification has been withdrawn in light of the amendments to the specification. The previous claim objections have been withdrawn in light of the amendments to claims 21, 31, and 32.

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, "the slurry circulated between a number of treatment tanks in series or in parallel" of claim 26 and "the tanks are utilized in order" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New

Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The subject matter of claims 26 and 27 do not have proper antecedent basis in the specification.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 18, 20, 23, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,116,043 to Clark et al, hereinafter referred to as Clark in view of US

6,216,469 B1 to Miller, hereinafter referred to as Miller, and in further view of US 6,301,904 B1 to Goldstein, hereinafter referred to as Goldstein.

In reference to claim 18, Clark, Miller and Goldstein disclose the claimed invention.

Clark discloses a method for tempering at least one packaged product unit in a treatment tank (16), the method comprising:

placing the at least one packaged product unit in the treatment tank (16), see column 4 lines 1-11;

introducing an ice slurry comprising water and ice particles into the treatment tank; and

circulating the cooling liquid in the treatment tank around the at least one packaged product unit in order to cool the at least one packaged product unit, wherein the cooling liquid present in an overflow trough (134) located at an upper part of the treatment tank (16, see figure 3

Clark fails to teach introducing ice slurry comprising water and ice particles into the treatment tank and wherein the overflow is pumped through a pipe connected to the overflow trough and injected back into the treatment tank through at least one injection nozzle.

Miller teaches that it is a known method to introduce ice slurry into a chill treatment tank in order to process and chill goods processed within; see at least column 4 lines 45-60. Miller further teaches that a significant benefit to an ice slush system is their use of off-period ice building to reduce power costs, see column 1 lines 40-56. Further, the cooling coil of Clark (84) is perfectly capable of

producing ice by the method taught by Miller in column 1 lines 40-57 (i.e. ice is built on cooling coils) and it would have been within the capabilities of one skilled in the art to modify the system of Clark by the teachings of Miller to include introducing an ice slurry to the tank (16) of Clark instead of merely chilled liquid. Therefore, since all claimed elements were known in the art and one having ordinary skill in the art could have combined the elements as claimed by known methods, with no change in their respective functions and the combination would have yielded the predictable result of providing chilled ice slurry to the tank, it would have been obvious to one having ordinary skill in the art at the time the invention was made, to modify the system of Clark to introduce ice slurry comprising water and ice particles into the treatment tank in order to advantageously produce slush during off-periods to reduce power costs.

Goldstein teaches that it is a known method to recirculate at least a portion of ice particles collected from an over flow of an ice tank back into the ice storage tank. Further, one skilled in the art would recognize that by recycling the slurry collected in the overflow trough (134) of Clark and Miller as modified above, that one could take advantage of residual cooling remaining in the slurry exiting the tank. One would further understand that by diverting the slurry solution back to the lower tank, the need to dispose of possibly contaminated slurry solution would be eliminated. Further, it would have been well within the capabilities of one having ordinary skill to divert the slurry exiting the overflow through (134) to the lower tank and meet the claimed limitaitons. Therefore, since

all claimed elements were known in the art and one having ordinary skill in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded the predictable result of recycling the overflow, it would have been obvious to one having ordinary skill in the art at the time the invention was made, in order to advantageously recycle the slurry and take advantage of the residual cooling capacity contained within the overflow.

In reference to claim 20, Clark, Miller and Goldstein disclose the claimed invention.

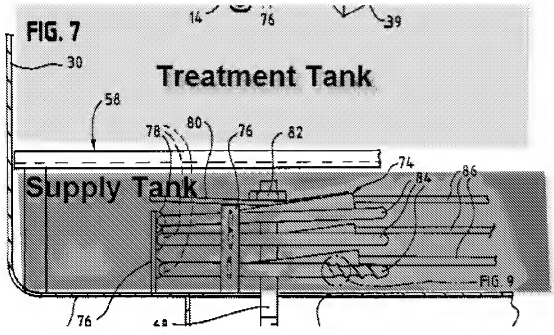
Clark, Miller and Goldstein fail to specifically disclose at least three injection nozzles.

However, the nozzle (28) of Clark is an essential working parts in that without it, slurry would fail to provide circulation through the tank for agitation of the food containers. Further, the requirement of at least three injection nozzles is mere duplication of an essential working part of the apparatus of Clark. Applicant should note that it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. Further, one skilled in the art would recognize that by placing three nozzles for distribution of cooled water into the tank, that one could more evenly distribute cooling slurry to the tank and prevent warm spots from developing as distance from the center increases. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide at least three injection nozzles in

order to more evenly distribute the cooling slurry to the tank and prevent warm spots from developing as the distance from the center increases.

In reference to claim 23, Clark, Miller and Goldstein disclose the claimed invention.

Clark, Miller and Goldstein fail to specifically disclose when the temperature of the ice slurry reaches approximately 0.5 degrees Celsius, additional ice slurry is introduced into the treatment tank from a supply tank in which the ice slurry is prepared with an adequate ratio of ice particles from an ice machine. One skilled in the art would understand that adding additional ice slurry to the tank is an obvious mechanical expedient for increasing the temperature of the tank. It is also a well known concept to have a set point for a refrigeration system when the temperature in the tank is above the set point, to provide additional cooling to the tank to maintain the set point in the tank. Further, one skilled in the art would recognize that when freezing a product, one would wish to keep the tank environment below the freezing point of water. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made, to modify the system of Clark, Miller and Goldstein to include a set point slightly above freezing (i.e .5 degrees Celcius) and provide additional ice slurry into the tank from a supply tank, as defined in Reference 1 below, when the temperature exceeds this set point in order to ensure that the temperature of the tank remains below freezing when it is desired to freeze the items introduced into the tank.



Reference 1

In reference to claim 26, Clark, Miller and Goldstein disclose the claimed invention.

Clark, Miller and Goldstein fail to teach wherein the ice slurry is circulated between a number of treatment tanks for product units in series or in parallel and an ice slurry supply tank for tempering of the product units.

However, the treatment tank (16) of Clark is an essential working part in that without it, there would be no means for holding the ice slurry and the food product and the system would fail to work as intended. Applicant should note that it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. Further one skilled in the art would recognize that by providing a number treatment tanks in either series or parallel to each other, that one ice forming tank (as defined in Reference 1 above) could be utilized to cool multiple types of food products which require varying

temperature treatments. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a number of treatment tanks for product units in series or in parallel with the ice slurry supply tank in order to accommodate the temperature treatment of different food products requiring different temperature treatments.

Claims 19, 21, 22, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark, Miller and Goldstein and in further view of WO 99/21429 to Borrup, hereinafter referred to as Borrup.

In reference to claim 19, Clark, Miller, Goldstein and Borrup disclose the claimed invention.

Clark, Miller and Goldstein fail to teach wherein the ice slurry is 25 % ice particles and has a temperature of -2.5 degrees Celsius.

However, Borrup teaches that the ice content percent weight of ice in a slush ice is a result effective variable in that it achieves a recognized result. Under this analysis, the recognized result is providing an excellent heat-transfer coefficient for slush ice and providing a specific pressure loss, see Borrup page 6 lines 23 through page 7 line 7.

Since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 223, it would have been obvious to one having ordinary skill in the art at the time the invention was made to select

an optimum percent weight of ice particles as 25% in the ice slurry in order to achieve optimum heat-transfer coefficients and pressure losses.

Further Borrup teaches the temperature of the chilling medium is a results effective variable in that it achieves a recognized result. Under this analysis, the recognized result is shell freezing, see page 3 lines 21-57.

Since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 223, it would have been obvious to one having ordinary skill in the art at the time the invention was made, to select and optimum working temperature of -2.5 Celcius of the slurry in order to achieve or prevent the desired shell freezing for the food being chilled.

In reference to claim 21, Clark, Miller, Goldstein and Borrup disclose the claimed invention.

Clark, Miller, and Goldstein fail to teach wherein the water is a saline brine in the form of a mixture of salt dissolved in fresh water comprising approximately 2% salt

However, Borrup teaches that it is a known method to provide a slurry wherein the water is a saline brine in the form of a mixture of salt dissolved in fresh water, see page 7, lines 11-13. Borrup further teaches that the percentage of salt dissolved is a result effective variable in that it achieves a recognized

result. Under this analysis the recognized result is providing a good heat-transfer coefficient, see page 7 lines 10-13.

Since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 223, it would have been obvious to one having ordinary skill in the art at the time the invention was made, to select an optimum mixture of salt and freshwater of 2% salt in order to achieve the optimum heat-transfer coefficient for cooling the desired products.

In reference to claim 22, Clark, Miller, Goldstein and Borrup disclose the claimed invention.

Clark, Miller and Goldstein fail to teach wherein the ice slurry comprises approximately 25% ice particles by weight, 2 % sodium chloride by weight and the remainder fresh water, whereby the sodium chloride allows for the temperature of the ice slurry to be approximately -2.5 degrees Celsius without the water freezing.

However, Borrup teaches that the ice content percent weight of ice in a slush ice is a result effective variable in that it achieves a recognized result. Under this analysis, the recognized result is providing an excellent heat-transfer coefficient for slush ice and providing a specific pressure loss, see Borrup page 6 lines 23 through page 7 line 7.

Since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering optimum or workable ranges involves only

routine skill in the art. In re Aller, 105 USPQ 223, it would have been obvious to one having ordinary skill in the art at the time the invention was made to select an optimum percent weight of ice particles of 25% by weight in the ice slurry in order to achieve optimum heat-transfer coefficients and pressure losses.

Borrup further teaches that the percentage of salt dissolved is a result effective variable in that it achieves a recognized result. Under this analysis the recognized result is providing a good heat-transfer coefficient, see page 7 lines 10-13.

Since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 223, it would have been obvious to one having ordinary skill in the art at the time the invention was made, to select an optimum mixture of salt and freshwater at 2% salt in order to achieve the optimum heat-transfer coefficient for cooling the desired products.

Further Borrup teaches the temperature of the chilling medium is a results effective variable in that it achieves a recognized result. Under this analysis, the recognized result is shell freezing, see page 3 lines 21-57.

Since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 223, it would have been obvious to one having ordinary skill in the art at the time the invention was made, to select

the claimed optimum working temperature of the slurry of -2.5 Calculus in order to achieve or prevent the desired shell freezing for the food being chilled.

In reference to claim 24, Clark, Miller, Goldstein and Borrup disclose the claimed invention.

Clark, Miller and Goldstein as modified above fail to teach the ice slurry is prepared in the supply tank to comprise from about 15% to about 25% ice particles and has a temperature from about -1 degrees Celsius to about -2 degrees Celsius.

However, Borrup teaches that the ice content percent weight of ice in a slush ice is a result effective variable in that it achieves a recognized result. Under this analysis, the recognized result is providing an excellent heat-transfer coefficient for slush ice and providing a specific pressure loss, see Borrup page 6 lines 23 through page 7 line 7.

Since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 223, it would have been obvious to one having ordinary skill in the art at the time the invention was made to select an optimum percent weight of ice particles to be between 15% to 25% in the ice slurry in order to achieve optimum heat-transfer coefficients and pressure losses.

Further Borrup teaches the temperature of the chilling medium is a results effective variable in that it achieves a recognized result. Under this analysis, the recognized result is shell freezing, see page 3 lines 21-57.

Further Borrup teaches the temperature of the chilling medium is a results effective variable in that it achieves a recognized result. Under this analysis, the recognized result is shell freezing, see page 3 lines 21-57.

Since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 223, it would have been obvious to one having ordinary skill in the art at the time the invention was made, to select and optimum working temperature of -1 to -2 Celsius of the slurry in order to achieve or prevent the desired shell freezing for the food being chilled.

Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Clark, Miller, Goldstein and in further view of US 6,301,904 B1 to Goldstein, hereinafter referred to as Goldstein.

In reference to claim 25, Clark, Miller, Goldstein and Goldstein 904 disclose the claimed invention.

Clark Miller and Goldstein as modified above fail to teach wherein the ice slurry in the supply tank (see reference 1 above) is kept in a condition which allows for pumping by stirring it with a paddle mechanism.

Goldstein 904 teaches that it is a known method to agitate ice slurry held within a tank with paddles (228, blades, see figure 2) in order to ensure sufficient agitation of the ice slurry.

Further, one skilled in the art would know that if the contents of the supply tank (as defined in reference 1 above) was not agitated, the ice would form in solid masses around the cooling coils (84) and the ice would fail to be distributed into a slurry formation. Since all claimed elements were known in the art and one having ordinary skill in the art could have combined the elements as claimed by known methods with no change in their respective function, and the combination would have yielded the predictable result of forming an evenly distributed ice slurry, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Clark, Miller, and Goldstein to include agitation paddles as taught by Goldstein 904 in the supply tank in order to ensure sufficient agitation of the ice slurry.

Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Clark, Miller, Goldstein and in further view of US 3,300,933 to Schlemmer, hereinafter referred to as Schlemmer.

In reference to claim 27, Clark, Miller, Goldstein and Schlemmer disclose the claimed invention.

Clark, Miller and Goldstein fail to disclose wherein the treatment tanks are utilized in order, one after the other.

Schlemmer teaches that when an unfrozen food is to be cooled, that it is more economical to cool the product in two separate stages, see column 1 lines 44-62. One skilled in the art would, then be motivated to provide a process and

apparatus with multiple stages utilized in order, one after the other in order to cool unfrozen food in stages. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made, to utilize the treatment tanks of varying temperatures in order, one after the other in order to freeze food in a more economical manner.

Claims 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark, Miller, Goldstein and in further view of US 5,557,943 to Coelho et al., hereinafter referred to as Coelho.

In reference to claim 28, Clark, Miller, Goldstein and Coelho disclose the claimed invention.

Clark, Miller and Goldstein fail to specifically disclose wherein the at least one packaged product unit comprises a vacuum packed product.

Coelho teaches that for efficient chilling of food articles, it is a known method to conform the exterior periphery of a membrane to an article to be chilled by a vacuum to assure that air gaps, a source of inefficiency in heat transfer, are kept to minimum, see column 4 lines 40-48. One skilled in the art would be concerned about maintaining a highly efficient heat transfer process. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Clark, Miller and Goldstein to include a vacuum packed product in order to assure that air gaps are kept to a minimum.

In reference to claim 29, Clark, Miller, Goldstein and Coelho disclose the claimed invention.

wherein the vacuum packed product comprises a food stuff, see Clark title, abstract, etc.

In reference to claim 30, Clark, Miller, Goldstein and Coelho disclose the claimed invention.

Clark teaches that typical cook-chill methods involve first cooking the food and then immediately placing the food in a chiller, See column 1 lines 25-30 but fails to teach:

wherein the at least one packaged product unit is a plurality of vacuum packed products, heating the plurality of vacuum packed products hanging side by side on a rack, transporting the rack with the plurality of vacuum packed products to the treatment tank, submerging the rack and the plurality of vacuum packed products in the treatment tank; and cooling the plurality of vacuum packed products for a predetermined period of time.

Coelho teaches that for efficient chilling of food articles, it is a known method to conform the exterior periphery of a membrane to an article to be chilled by a vacuum to assure that air gaps, a source of inefficiency in heat transfer, are kept to minimum, see column 4 lines 40-48. One skilled in the art would be concerned about maintaining a highly efficient heat transfer process. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Clark, Miller and

Goldstein to include a plurality of vacuum packed product in order to assure that air gaps are kept to a minimum.

Further Coelho teaches that it is known to temperature treat vacuum packed food products (A) by providing a rack for hanging side by side on a rack, see figure 6. Since it is a known method to provide a vacuum packed food products (A) with a rack for hanging side by side by side during temperature treatment, and one having ordinary skill in the art could have combined the elements as claimed with no change in their respective functions and the combination would have yielded the predictable result of providing a mechanism for easily transporting food products from an oven to the chiller during the cook-chill process, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Clark, Miller, and Goldstein to include heating the plurality of vacuum packed products hanging side by side on a rack, transporting the rack with the plurality of vacuum packed products to the treatment tank, submerging the rack and the plurality of vacuum packed products in the treatment tank and cooling the plurality of vacuum packed products in order to perform the cook-chill process with a mechanism which easily allows for transporting the food products from an oven to the chiller.

Further, it would be well within the capabilities of one having ordinary skill in the art to determine a minimum period of time that the food products must be chilled in order to obtain a desired core temperature. Therefore, it would have been obvious to one having ordinary skill in the art to leave the food products in

the chiller for a predetermined period of time in order to ensure that the core temperature of the food was reached before storing the products.

Claims 31 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark and Goldstein.

In reference to claim 31, Clark and Goldstein disclose the claimed invention.

Clark teaches a system for tempering at least one packaged product unit utilizing an ice slurry comprising water and ice particles, the system comprising:

at least one treatment tank (16) for submerging the at least one packaged product unit, wherein the at least one treatment tank comprises an upper part with an overflow trough (134);

at least one injection nozzle (28);

a pipe connecting the overflow trough and the at least one injection nozzle; and

a pump (38).

Clark fails to teach the pump associated with a pipe for pumping ice slurry present in the overflow trough through the pipe and injecting the ice slurry back into the at least one treatment tank through the least one injection nozzle so as to circulate the ice slurry in the at least one treatment tank around the at least one packaged product unit in order to cool the at least one packaged product unit.

Goldstein teaches that it is a known method to recirculate at least a portion of ice particles collected from an over flow of an ice tank back into the ice

storage tank. Further, one skilled in the art would recognize that by recycling the slurry collected in the overflow trough (134) of Clark and Miller as modified above, that one could take advantage of residual cooling remaining in the slurry exiting the tank. One would further understand that by diverting the slurry solution back to the lower tank, the need to dispose of possibly contaminated slurry solution would be eliminated. Further, it would have been well within the capabilities of one having ordinary skill to divert the slurry exiting the overflow through (134) to the lower tank and meet the claimed limitaitons. Therefore, since all claimed elements were known in the art and one having ordinary skill in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded the predictable result of recycling the overflow, it would have been obvious to one having ordinary skill in the art at the time the invention was made, to have the pump associated with a pipe for pumping ice slurry present in the overflow trough through the pipe and injecting the ice slurry back into the at least one treatment tank through the least one injection nozzle in order to advantageously recycle the slurry and take advantage of the residual cooling capacity contained within the overflow.

In reference to claim 32, Clark and Goldstein disclose the claimed invention.

Clark teaches a supply tank (see reference 1 above) in which the ice slurry is prepared, connected to the at least one treatment tank (16); and

means for circulating the ice slurry between the at least one treatment tank and the supply tank (40).

Applicant should note that expression relating an apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim. Since the apparatus of Clark as modified by Goldstein are capable of preparing an ice slurry, the apparatus of Clark and Goldstein as modified in claim 31 above meets the intended use required by the claims.

Claims 33 and 34 are rejected under 35 U.S.C. 103(a) as being obvious over Clark and Goldstein, and in further view of Coelho.

In reference to claim 33, Clark, Goldstein and Coelho disclose the claimed invention.

Clark and Goldstein fail to specifically disclose a transport organ for continual transport of the at least one packaged product unit to the at least one treatment tank for cooling with suspension for a required period of time.

However, Coelho teaches that it is known to temperature treat vacuum packed food products (A) by providing a rack for suspending the food products side by side on a rack during temperature treatment, see figure 6. Since all claimed elements were known in the art and one having ordinary skill in the art could have combined the elements as claimed with no change in their respective functions and the combination would have yielded the predictable result of providing a mechanism for continually transporting food products from an oven to

the chiller during the cook-chill process, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Clark, and Goldstein to include heating the products suspended side by side on a rack and transporting the rack with the plurality of vacuum packed products to the treatment tank in order to perform the cook-chill process with a mechanism which easily allows for transporting the food products from an oven to the chiller.

In reference to claim 34, Clark, Goldstein and Coelho disclose the claimed invention.

Clark and Goldstein fail to specifically disclose a rack on which the at least one packaged product unit hangs while submerged in the at least one treatment tank.

However, Coelho teaches that it is known to temperature treat vacuum packed food products (A) by providing a rack for suspending the food products side by side on a rack during temperature treatment, see figure 6. Since all claimed elements were known in the art and one having ordinary skill in the art could have combined the elements as claimed with no change in their respective functions and the combination would have yielded the predictable result of providing a mechanism for suspending the food products during the chill process, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Clark, and Goldstein to include heating the products suspended side by side on a rack while submerged in the

treatment tank in order to suspend the food products in the chill tank and provide for sufficient convection of the food products and the chilled liquid.

Response to Arguments

5. Applicant's arguments with respect to claims 18-34 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cassey Bauer whose telephone number is (571)270-7113. The examiner can normally be reached on Monday -Friday: 7-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frantz Jules can be reached on (571)272-6681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Cassey Bauer/

Examiner, Art Unit 3744

/Frantz F. Jules/
Supervisory Patent Examiner, Art Unit 3744